

REMARKS

Claims 1, 2 and 4-47 are pending in this application. By this Amendment, claim 3 is canceled without prejudice to or disclaimer of the subject matter recited therein and claim 1 is amended to incorporate the subject matter recited in cancelled claim 3. Claim 47 is added and includes the subject matter of original claim 1 and claim 10. Thus, no new matter is added.

Entry of the amendments is proper under 37 C.F.R. §1.116 since the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issue requiring further search and/or consideration since the amendments amplify issues previously discussed throughout prosecution; (c) do not present any additional claims without canceling a corresponding number of finally rejected claims; and (d) place the application in better form for appeal, should an appeal be necessary. Entry of the amendments is thus respectfully requested.

I. Claims Rejections Under 35 U.S.C. §102

Claims 1, 2, 13, 44 and 45 are rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent 5,470,491 to Kodama et al. The rejection is respectfully traversed.

Applicants assert that Kodama does not disclose each and every feature recited in the rejected claims. For example, Kodama does not disclose a method for fabricating a resist pattern, comprising the steps of forming a pre-resist pattern through exposure treatment and development treatment, said pre-resist pattern being made of a photoresist layer as a top layer and a polymethylglutarimide layer as a bottom layer, and ash-treating the pre-resist pattern to form a narrowed resist pattern.

Rather, Kodama discloses a masking photoresist 112 disposed over a silicon resin layer 111 (see Figs. 1C-1E, and col. 7, lines 49-54 of Kodama).

Furthermore, Kodama discloses the photoresist 112 being patterned by a photochemical technique to form the photoresist mask. The silicon resin 111 is ashed with a

combination of oxygen and freon by using the photoresist mask (see Figs. 1E and 1F, col. 7, line 44-col. 9, line 9 of Kodama). By using this technique, the silicon resin is only patterned widthwise to the configuration of the photoresist mask 112 (see Figs. 1A-1I of Kodama).

After patterning, the photoresist mask 112 is removed using oxygen plasma. Accordingly, Kodama does not disclose either a pre-resist pattern being made of a photoresist layer as a top layer and a polymethylglutarimide layer as a bottom layer or ash-treating the preresist pattern to form a narrowed resist pattern. Rather, the pre-resist layer is completely removed by ashing with oxygen plasma in Kodama. Accordingly, Kodama does not disclose each and every feature recited in the rejected claims.

II. Claim Rejections Under 35 U.S.C. §103

Claim 2 is rejected under 35 U.S.C. §103(a) as unpatentable over Kodama in view of U.S. Patent 5,811,358 to Tseng et al.; claims 3 and 4 are rejected under 35 U.S.C. §103(a) as unpatentable of Kodama in view of U.S. Patent 5,604,073 to Krounbi et al.; claims 5, 16, 26 and 36 are rejected under 35 U.S.C. §103(a) as unpatentable over Kodama in view of Krounbi and further in view of U.S. Patent 5,820,770 to Cohen et al. and U.S. Patent 5,721,078 to Kamijima; claims 6-8 are rejected under 35 U.S.C. §103(a) as unpatentable over Kodama in view of either Kamijima or U.S. Patent 4,444,869 to Chonan et al.; claims 9, 20, 30 and 40 are rejected under 35 U.S.C. §103(a) as unpatentable over Kodama in view of Cohen and further in view of either Chonan or Kamijima; claims 10 and 11 are rejected under 35 U.S.C. §103(a) as unpatentable over Kodama in view of U.S. Patent 4,894,311 to Uenishi et al.; claims 12, 23, 33 and 43 are rejected under 35 U.S.C. §103(a) as unpatentable over Kodama in view of Cohen further in view of Kamijima and Uenishi; claims 14, 24, 34 and 46 are rejected under 35 U.S.C. §103(a) as unpatentable over Kodama in view of Krounbi and further in view of either Cohen or Kamijima; claims 15, 25 and 35 are rejected under 35 U.S.C. §103(a) as unpatentable over Kodama in view of Krounbi further in view of Cohen and further

in view of Tseng; claims 17, 18, 27, 28, 37 and 38 are rejected under 35 U.S.C. §103(a) as unpatentable over Kodama in view of Cohen and further in view of either Chonan or Kamijima; claims 19, 29 and 39 are rejected under 35 U.S.C. §103(a) as unpatentable of Kodama in view of Cohen further in view of either Chonan or Kamijima and further in view of Tseng; claims 21, 31 and 41 are rejected under 35 U.S.C. §103(a) as unpatentable of Kodama in view of Cohen and further in view of Uenishi; and claims 22, 32 and 42 are rejected under 35 U.S.C. §103(a) as unpatentable over Kodama in view of Cohen and further in view of Uenishi and Tseng. As claim 3 is canceled the rejection of that claim is moot. Applicants respectfully traverse the rejection of claims 2 and 4-46.

Regarding the rejection of dependent claims 2, 4-13 and 44-46, Applicants assert that the dependent claims are allowable at least for their dependency on independent claim 1 for the reasons discussed above, as well as for the additional features recited therein.

Applicants assert that claims 2 and 4-46 distinguish over the combination of applied references as the primary reference of Kodama does not disclose the features as alleged in the Office Action for the reasons discussed above regarding the rejection of claims 1, 2, 13, 44 and 45. Additionally, none of the other applied references of record of Tseng, Krounbi, Cohen, Kamijima, Chonan or Uenishi disclose or suggest the deficiencies regarding Kodama as discussed above regarding the rejection of claim 1.

For example, regarding rejection of independent claim 14, neither Kodama, Krounbi, Cohen nor Kamijima disclose or suggest a method for patterning a thin film, comprising the steps of *inter alia* ash-treating the pre-resist pattern to form a narrowed resist pattern, and milling the thin film to be milled via the narrowed resist pattern to obtain a patterned thin film. Similarly, the combination of Kodama, Cohen, Chonan or Kamijima does not disclose or suggest each and every feature recited in independent claims 17 and 21, i.e., ash-treating the pre-

resist pattern to form a narrowed resist pattern, and milling the thin film to be milled via the narrowed resist pattern to obtain a patterned thin film.

Regarding the rejection of independent claims 24 and 27, the combination of Kodama, Krounbi, Cohen or Kamijima or Kodama, Cohen, Chonan or Kamijima does not disclose or suggest ash-treating the pre-resist pattern to form a narrowed resist pattern, forming a thin film to be patterned on the base materials so as to cover the narrowed resist pattern, and lifting off the resist pattern to obtain a patterned thin film, as recited in independent claims 24 and 27.

Regarding the rejection of independent claims 31, 34, 37 and 41, none of the applied references whether considered alone or in combination disclose each and every feature recited therein for at least the reasons discussed above.

III. New Claims

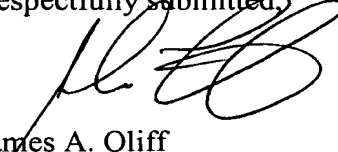
Applicants assert that new claim 47 is allowable over the applied references of record whether considered alone or in combination as any combination of the references does not disclose or suggest a method for fabricating a resist pattern, comprising the steps of forming a pre-resist pattern through exposure treatment and development treatment, said pre-resist pattern being made of a novolac positive photoresist containing an additive phenol dissolution accelerator, and ash-treating said pre-resist pattern to form a narrowed resist pattern.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 2 and 4-47 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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